## TNC Team

Alaska

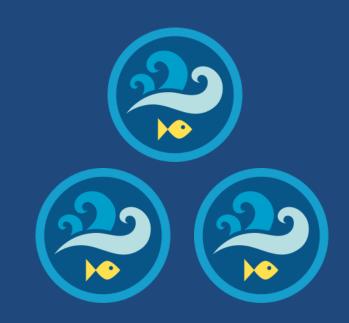
Global Marine Program

Randy Hagenstein,
State Director

Marcus Geist,
Spatial Data Manager

Jessica Speed,

Conservation Coordinator





## Primary Tasks

Interviews

Decision Support Tools

## **Primary Tasks**

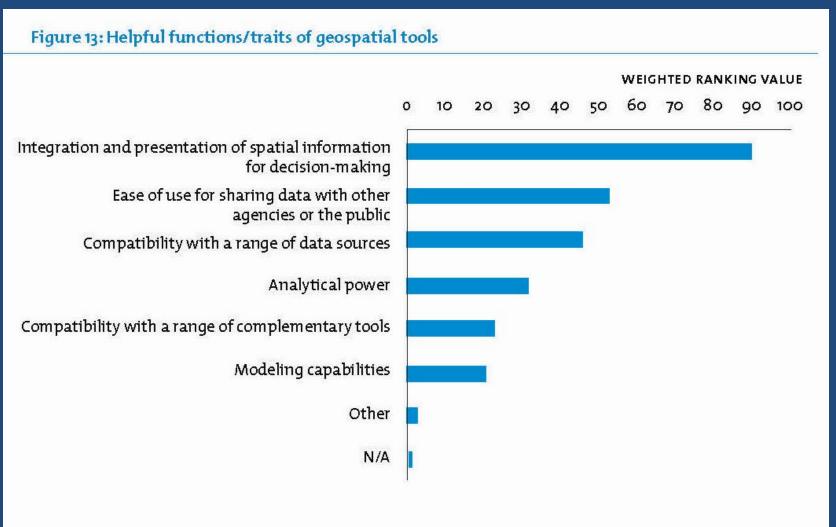
• Interviews: - Jessica Speed

– What decisions?

- What data?

– Who to Interview?

## Interviews – Sample Summary



Center for Ocean Solutions "Colloborative Geospatial Information and Tools for California Coastal and Ocean Managers Workshop"

## **Primary Tasks**

Decision Support Systems: - Marcus Geist

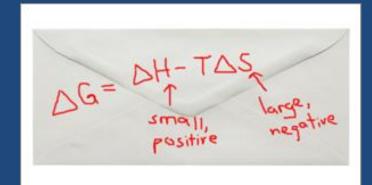
<u>Today's Goal – Have a report Framework</u>

DSS in Alaska

— Other Marine DSS?

— Best Fit for Alaska?

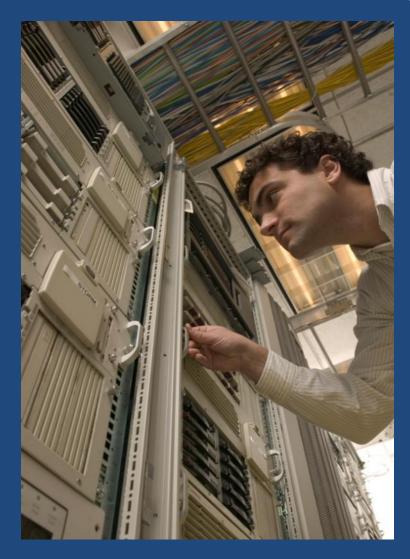


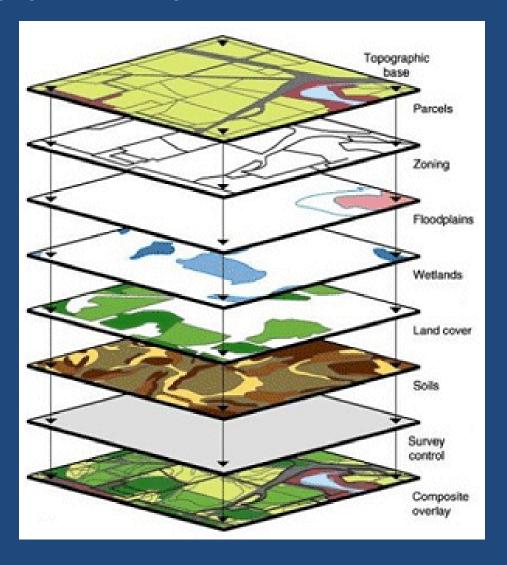










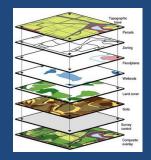


complex

## Complexity















simple

**Participation** 

Progd



## Choices, Choices, Choices

Collaborative Geospatial Information and Tools for California Coastal and Ocean Managers

#### **FISHERIES**

Leadership & Sustainability
FORUM

The Role of the Regional Fishery Managemen Multi-Sector Spatial Planning: Exploring existing tools and future oppor

Prepared by Meghan Jeans of the Fisheries Leadership & Sus for the 2011 West Coast Forum

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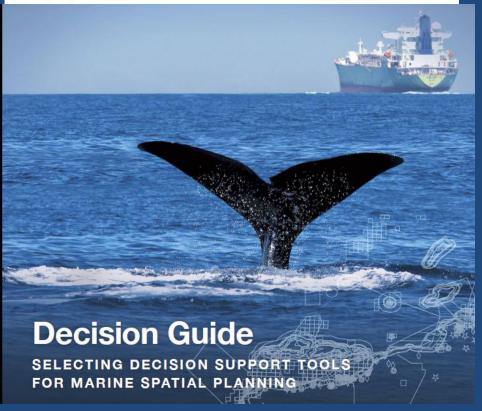


#### Marine Planning

Practical approaches to ocean and coastal decision-making

#### GUIDANCE FOR INTERACTIVE DECISION SUPPORT SYSTEMS (DSS)

Multiple-objective planning increasingly relies on interactive decision support systems (DSS) that provide transparency and stakeholder engagement. The need for a robust, transparent interactive DSS tends to increase with the number of planning objectives and the complexity of the tradeoffs among planning options. At the same time, the data requirements, technical challenges, and cost of DSS implementation also increase. This page provides guidance for using interactive DSS to support coastal and marine management, including ecosystem-based management (EBM) and marine spatial planning (MSP).



## **Decision Support Functions**

#### PROCESS MATRIX PROCESS STEP This Process Matrix shows the generic steps of a marine spatial planning process and the DST functions (detailed Identify issues, constraints, and future conditions Refine goals and objectives in Chapter 5) that can add value to each of the steps. Gather data and define current conditions Monitor and evaluate management measures Evaluate alternatives Develop alternatives **TOOL FUNCTION** Data management Mapping and Visualization Alternative scenario development and analysis Management measure option proposal Stakeholder participation and collaboration, and community outreach and engagement 1 Adaptive management and assessment of achieving objectives

## DSS meets Consumer Reports

		Dec	Decision Support Tools									
		ARIES	Atlantis	Coastal	Cumulative							
	Functions			Resilience	Impacts							
	DATA MANAGEMENT			T.								
	Data provisioning	1		1	1							
	Data quality assessment	1										
	Data upload & archival	1		1	1							
	Data development			1								
	MAPPING & VISUALIZATION											
	Spatial											
NO	Basemaps/Physical	1		1	1							
FUNCTION	Habitats/species	1		1	1							
I FE	Ecosystem services	1										

## **DSS Report Card**

- **x** performs ≥ 75% of the tool functions
- ✓ performs 50–75% of tool functions
- performs < 50% of tool functions

#### THE DECISION SUPPORT TOOL RUBRIC

Gather data &

define current

conditions

The following matrix combines the Process Matrix from Chapter 4 with the Tool Function Matrix on the previous pages into one Decision Support Tool Rubric. This Rubric highlights the generic steps in a planning process, couples the tool function categories that are likely to be important for those steps, and highlights the DSTs that currently fill such a role. The different symbols reflect the number of

Identify issues.

constraints, and

future conditions

Develop alternative

management measures

specific functions within each broad function category that the tool is capable of performing. The symbols do not, however, evaluate how well each tool performs these specific functions. This Rubric should be reviewed alongside the Tool Function Matrix to ensure that the tools selected include the specific tool functions required in a process.

Monitor

and evaluate

management

Refine goals

and objectives

	tions 5% is k	TOOLTUNCTION	Data Management	Mapping & Visualization	Stakeholder Participation	Mapping & Visualization	Alternative Scenarios	Stakeholder Participation	Mapping & Visualization	Alternative Scenarios	Management Measures	Stakeholder Participation	Mapping & Visualization	Alternative Scenarios	Management Measures	Stakeholder Participation	Adaptive Management	Mapping & Visualization	Stakeholder Participation	Adaptive Management	Mapping & Visualization	Stakeholder Participation	Adaptive Management
			×	×	×	×	1	×	×	1	1	×	×	1	1	×	1	×	×	1	×	×	1
Atlantis				0		0	1		0	1			0	1			×	0		×	0		×
Coastal Resilie	ince		×	×	1	×	1	1	×	1		1	×	1		1		×	1		×	1	
Cumulative Imp	pacts		1	×	1	×	0	1	×	0	×	1	×	0	×	1	0	×	1	0	×	1	0
InVEST			0	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
MarineMap				×	×	×	×	×	×	×	×	×	×	×	×	×	1	×	×	1	×	×	1
Marxan with Z	ones			0	×	0	1	×	0	1	1	×	0	1	1	×	0	0	×	0	0	×	0
MIMES			×	×	/	×	×	1	×	×	×	1	×	×	×	1	/	×	1	1	×	1	1
Multipurpose F	Marine Cadastr	e	×	1	0	1		/	1		/	0	1		/	0		1	0		1	0	

Evaluate alternative

# ynamic Ice?

## STAMP Report ?

		PROCESS STEP	defin	ner data ne currer ditions	rrent constraints, and management measures scenarios						valuate alternative cenarios					itor evaluat agemen sures	-	Refine goals and objectives					
,	x performs ≥ 75% of the tool functions  ✓ performs 50–75% of tool functions  O performs < 50% of tool functions	TOOL FUNCTION	Data Management	Mapping & Visualization	Stakeholder Participation	Mapping & Visualization	Alternative Scenarios	Stakeholder Participation	Mapping & Visualization	Alternative Scenarios	Management Measures	Stakeholder Participation	Mapping & Visualization	Alternative Scenarios	Management Measures	Stakeholder Participation	Adaptive Management	Mapping & Visualization	Stakeholder Participation	Adaptive Management	Mapping & Visualization	Stakeholder Participation	Adaptive Management
	ARIES		×	×	×	x	1	x	×	1	1	×	×	1	1	×	1	x	x	1	x	×	,
	Atlantis			0		0	/		0	1			0	1			×	0		×	0		,
	Coastal Resilience		×	×	1	×	1	1	×	1		1	×	1		1		×	1		×	1	
	Cumulative Impacts		1	×	1	x	0	1	×	0	×	1	×	0	x	1	0	x	1	0	x	1	,
	InVEST		0	×	×	x	x	×	×	x	×	×	x	×	×	x	×	×	x	x	×	×	
	MarineMap			×	×	×	×	×	×	×	×	×	×	×	×	×	1	×	×	1	×	×	2
	Marxan with Zones			0	×	0	1	x	0	1	1	×	0	1	1	×	0	0	×	0	0	×	
	MIMES		×	×	1	x	x	1	×	x	×	1	×	×	×	1	1	×	1	1	×	1	
T	Multipurpose Marine Cadastre		×	1	0	1		1	1		/	0	/		1	0		1	0		1	0	

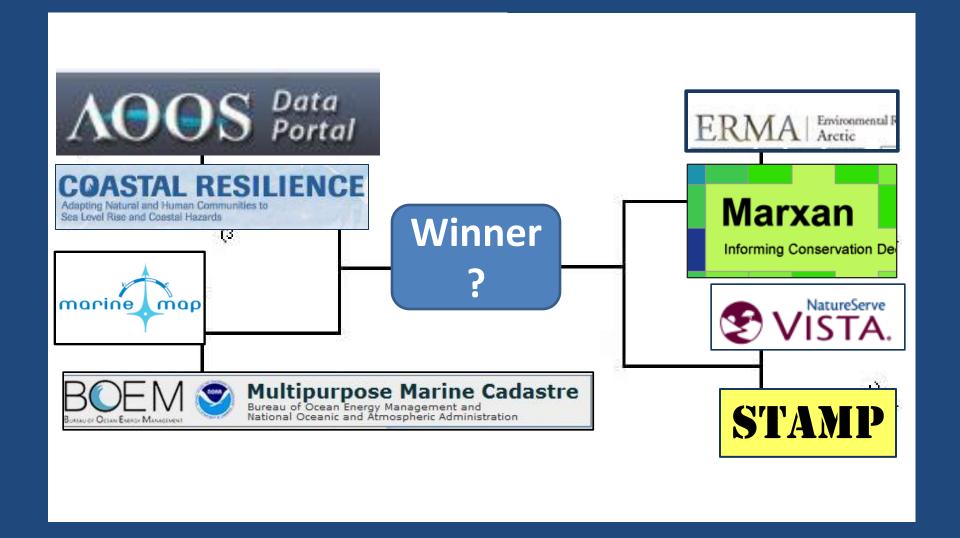
**AOOS** 

x o x o / /

**Arctic ERMA** 

XXX OX O/ /

## Marine Madness



### Contact

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